

40 CFR 142.14 RECORDS KEPT BY STATES

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	EXPLANATION OF STATE POLICIES AND PROCEDURES
40 CFR 142.16(o)(4)(iv) and 142.16(o)(4)(v) Records of notices of the State-specified monitoring and compliance requirements (when using membrane filtration or alternative treatment) needed to achieve at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log inactivation and removal) before or at the first customer.	40 CFR 142.14 (d)(17)(viii)	Adopted by Reference. Records will be filed in each individual system file folder.
40 CFR 141.403(b)(1) and 141.403(b)(2) of this chapter. Records of written notices from the ground water system that it provides at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for a ground water source.	40 CFR 142.14 (d)(17)(ix)	Adopted by Reference. Records will be filed in each individual system file folder.
40 CFR 142.16(o)(4)(vi). Records of written determinations that the ground water system may discontinue 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log inactivation and removal).	40 CFR 142.14 (d)(17)(x)	Adopted by Reference. Records will be filed in each individual system file folder.

[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30] [31] [32] [33] [34] [35] [36] [37] [38] [39] [40] [41] [42] [43] [44] [45] [46] [47] [48] [49] [50] [51] [52] [53] [54] [55] [56] [57] [58] [59] [60] [61] [62] [63] [64] [65] [66] [67] [68] [69] [70] [71] [72] [73] [74] [75] [76] [77] [78] [79] [80] [81] [82] [83] [84] [85] [86] [87] [88] [89] [90] [91] [92] [93] [94] [95] [96] [97] [98] [99] [100]

40 CFR 142.15 RECORDS BY STATES		
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<i>Ground water rule. Sanitary surveys.</i> The month and year in which the most recent sanitary survey was completed or, for a State that uses a phased review process, the date the last element of the applicable eight elements was evaluated under 40 CFR 142.16(o)(2) for each ground water system.	40 CFR 142.15 (c)(7)(i)	Adopted by Reference. The month and year in which the most recent sanitary survey is completed is already being reported in SDWIS/Fed.
<i>Corrective action requirements.</i> For any corrective action under 40 CFR 141.403(a) of this chapter, the date the ground water system completed corrective action.	40 CFR 142.15 (c)(7)(ii)	Adopted by Reference. <i>Corrective action requirements</i> will be reported in SDWIS/Fed.
<i>Compliance monitoring.</i> All ground water systems providing at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for any ground water source(s).	40 CFR 142.15 (c)(7)(iii)	Adopted by Reference. <i>Compliance monitoring</i> will be reported in SDWIS/Fed.

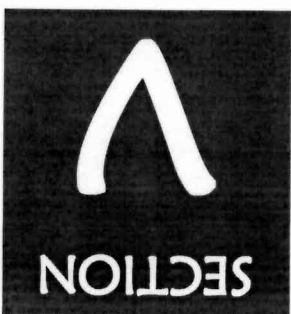








## GWR Special Privacy Requirements





COMMONWEALTH OF PUERTO RICO  
DEPARTMENT OF HEALTH  
PUBLIC WATER SUPPLY SUPERVISION PROGRAM



## Ground Water Rule (GWR) § 142.16 Special Primacy Requirements

The following table contains the PRDOH Action/Compliance with the special primacy requirements of 40 CFR 142.16 for the implementation of the Ground Water Rule (GWR). These requirements are addressed in the same order that they occur in the rule.

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<i>Table 1 of 40 CFR 141.202(a) (Items (5), (6), and (9))</i> —To require public water systems to give a Tier 1 public notice (rather than a Tier 2 or Tier 3 notice) for violations or situations listed in Appendix A of Subpart Q of Part 141 of this chapter;	40 CFR 142.16 (a)(2)(iii)	Attorney General Opinions (AGOs) from August 21, 2000, July 24, 2001, and June 5, 2002, reveals that the PRDOH is fully authorized to adopt and enforce the SDWA amendments through legally adequate means including the requirement that PRDOH regulations are no less stringent than the Federal requirements. Nonetheless, PRDOH requested an AGO, dated November 6, 2008, to certify that all regulations are duly adopted, are enforceable, and that the status of the audit laws has not changed since the prior AGOs submittal. All AGOs are included in Section VI of the GWR Primacy Package. To this extent, PRDOH has the authority to require public water systems to give a Tier 1 public notice (rather than a Tier 2 or Tier 3 notice) for violations or situations listed in Appendix A of Subpart Q of Part 141, as provided in <i>Table 1 of 40 CFR 141.202(a) (Items (5), (6), and (9))</i> .
<i>Requirements for States to adopt 40 CFR part 141, subpart S.</i> In addition to the general primacy requirements specified elsewhere in this part, including the requirement that State regulations are no less stringent than the Federal requirements, an application for approval of a State program revision that adopts 40 CFR part	40 CFR 142.16 (o)	Attorney General Opinions (AGOs) from August 21, 2000, July 24, 2001, and June 5, 2002, reveals that the PRDOH is fully authorized to adopt and enforce the SDWA amendments through legally adequate means including the

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141, subpart S, must contain the information specified in this paragraph (o).		requirement that PRDOH regulations are no less stringent than the Federal requirements. PRDOH requested an AGO, dated November 6, 2008, to certify that all regulations are duly adopted, are enforceable, and that the status of the audit laws has not changed since the prior AGOs submittal. All AGOs are included in Section VI of the GWR Primacy Package.
<i>Legal authority.</i> The application for primacy must demonstrate the State has:	40 CFR 142.16 (o)(1)	This row intentionally left blank.
The authority contained in statute or regulation to ensure that ground water systems conduct source water monitoring under 40 CFR 141.402(a)(2), 40 CFR 141.402(a)(3) and 40 CFR 141.402(a)(4)(ii)(A) of this chapter.	40 CFR 142.16 (o)(1)(i)	PRDOH requested an AGO, dated November 6, 2008, to certify that all regulations are duly adopted, are enforceable, and that the status of the audit laws has not changed since the prior AGOs submittal. All AGOs are included in Section VI of the GWR Primacy Package. To this extent, PRDOH has the authority to ensure that ground water systems conduct source water monitoring under 40 CFR 141.402(a)(2), 40 CFR 141.402(a)(3) and 40 CFR 141.402(a)(4)(ii)(A) of this chapter. The PRDOH will approve the use of <i>E. coli</i> , <i>enterococci</i> , or <i>coliphage</i> as the fecal indicator for all ground water source samples collected under 40 CFR 141.402(a). All samples must be analyzed using one of the EPA-approved analytical methods listed for the fecal indicator selected, as provided in 40 CFR 141.402(c)(2). The PRDOH Public Health Laboratories Hygiene Laboratories Certification Program develops a list of available laboratories with their certified status that can perform EPA-approved analytical methods. The most recent (updated) list is provided to the PWSS Program Director.
The authority contained in statute or regulation to ensure that ground water systems take the appropriate corrective actions including interim measures, if necessary, needed to address	40 CFR 142.16 (o)(1)(ii)	State Administrative Orders 2002-364-02, as provided in Sections 2(a)-(d) and 3(a)-(c), and 2008-529-09, Section 3, provide regulations to

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significant deficiencies.		ensure that ground water systems take the appropriate corrective actions including interim measures, if necessary, needed to address significant deficiencies. PRDOH will ensure follow-up based on the approved action plan and schedule submitted by the PWS. If the system fails to take the appropriate corrective actions, both administrative orders provide PRDOH with the authority to take administrative or legal actions and assess penalties to require systems to take the steps necessary to correct significant deficiencies. State Administrative Orders 2002-364-02 and 2008-529-09 are included in Appendices 1 and 2.
The authority contained in statute or regulation to ensure that ground water systems take the appropriate corrective actions, including interim measures if necessary, to address any source water fecal contamination identified during source water monitoring under 40 CFR 141.402 of this chapter.	40 CFR 142.16 (o)(1)(iii)	State Administrative Order 2008-529-09, Section 4, provide regulation to ensure that ground water systems take the appropriate corrective actions including interim measures, to address any source water fecal contamination identified during source water monitoring under 40 CFR 141.402. PRDOH will ensure follow-up based approved action plan and schedule. If the system fails to take the appropriate corrective actions, the AO provide PRDOH the authority to take administrative or legal actions and assess penalties to require systems to take the steps necessary to correct source water fecal contamination. State Administrative Order 2008-529-09 is included in Appendix 2.
The authority contained in statute or regulation to ensure that ground water systems consult with the State regarding corrective action(s).	40 CFR 142.16 (o)(1)(iv)	State Administrative Order 2008-529-09, Sections 3, 4 and 5, provide regulation to ensure that ground water systems consult with PRDOH regarding corrective action(s). Requiring the PWS to submit a written action plan provides PRDOH with a consultation process intended to allow the flexibility and authority needed to

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		determine the most appropriate corrective actions to address site-specific conditions. The PRDOH will notify the PWS in writing of the reviewed/approved action plans prior the system begins taking any corrective action(s). If the system fails to consult or does not perform appropriate corrective actions according to the PRDOH approved action plan and schedule, it will be subject to enforcement as established in the AO. State Administrative Order 2008-529-09 is included in Appendix 2.
<i>State practices or procedures for sanitary surveys.</i> In addition to the general requirements for sanitary surveys contained in 40 CFR 142.10(b)(2), a primacy application must describe how the State will implement a sanitary survey program that meets the requirements of paragraph (o)(2)(i) of this section. A "sanitary survey," as conducted by the State, includes but is not limited to, an onsite review of the water source(s) (identifying sources of contamination by using results of source water assessments or other relevant information where available), facilities, equipment, operation, maintenance, and monitoring compliance of a public water system to evaluate the adequacy of the system, its sources and operations and the distribution of safe drinking water.	40 CFR 142.16 (o)(2)	This row intentionally left blank.
The State must conduct sanitary surveys that address the eight sanitary survey components listed in this section no less frequently than every three years for community water systems, except as provided in paragraph (o)(2)(iii) of this section, and every five years for non-community water systems. The State may conduct more frequent sanitary surveys for any system. The initial sanitary survey for each community water system must be conducted by December 31, 2012, unless the system meets the requirements of paragraph (o)(2)(iii) of this section. The initial sanitary survey for each community water system that meets the requirements of paragraph (o)(2)(iii) of this section and for each non-community water system must be conducted by December 31, 2014. The sanitary survey must include an evaluation of each of the	40 CFR 142.16 (o)(2)(i)	<i>Frequency and scope:</i> PRDOH conduct sanitary surveys that address the eight sanitary survey components since October 1999. PRDOH's first Sanitary Survey Program was established in FY-2000 to ensure sanitary surveys were conducted no less frequently than every three years for community water systems and every five years for non-community water systems (NCWS). This Program has been updated every three years to ensure sanitary surveys are performed at the frequency required. The last update of the Program provides to meet the requirement that initial sanitary survey for each community water



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following elements as applicable:		<p>system must be conducted by December 31, 2012 and by December 31, 2014 for each NCWS.</p> <p><i>Capacity and implementation:</i> PRDOH's have limited resources but the above requirements are being met by the existing Program. Sanitary surveys are performed at the frequency required, although PRDOH annually negotiates with EPA the quantity of Sanitary Surveys to be conducted each year. PRDOH's database provides the last date a sanitary survey was conducted and the date of the next sanitary survey as well. The Sanitary Survey Program takes the in consideration factors like quantity of systems per region, type of systems, and others. The personnel performing that sanitary surveys are highly experienced and have the professional qualifications and training necessary to assure sanitary surveys are conducted by appropriately skilled and adequately trained professionals. These personnel were initially trained and certified by EPA and new staff is being trained by them. Appendix 3 provides a copy of several PRDOH's Sanitary Survey Programs, including the most updated. Appendix 4 provides a copy of the PRDOH's Sanitary Survey Form to demonstrate that all eight elements are being addressed.</p>
Source,	40 CFR 142.16 (o)(2)(i)(A)	Element is included in PRDOH's Sanitary Survey Form included in Appendix 4.
Treatment,	40 CFR 142.16 (o)(2)(i)(B)	Element is included in PRDOH's Sanitary Survey Form included in Appendix 4.
Distribution system,	40 CFR 142.16 (o)(2)(i)(C)	Element is included in PRDOH's Sanitary Survey Form included in Appendix 4.
Finished water storage,	40 CFR 142.16 (o)(2)(i)(D)	Element is included in PRDOH's Sanitary Survey Form included in Appendix 4.

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Pumps, pump facilities, and controls,	40 CFR 142.16 (o)(2)(i)(E)	Element is included in PRDOH's Sanitary Survey Form included in Appendix 4.
Monitoring, reporting, and data verification,	40 CFR 142.16 (o)(2)(i)(F)	Element is included in PRDOH's Sanitary Survey Form included in Appendix 4.
System management and operation, and	40 CFR 142.16 (o)(2)(i)(G)	Element is included in PRDOH's Sanitary Survey Form included in Appendix 4.
Operator compliance with State requirements.	40 CFR 142.16 (o)(2)(i)(H)	Element is included in PRDOH's Sanitary Survey Form included in Appendix 4.
The State may use a phased review process to meet the requirements of (o)(2)(i) of this section if all the applicable elements of paragraphs (o)(2)(i)(A) through (o)(2)(i)(H) of this section are evaluated within the required interval.	40 CFR 142.16 (o)(2)(ii)	The PRDOH do not conduct sanitary surveys in a staged or phased review process. PRDOH coordinates to conduct sanitary surveys in a full process. The timeframe required will depend on the size of the system. Nevertheless, PRDOH may consider conducting sanitary surveys as part of a staged or phased review process if other program activities may serve to address one or more of the eight elements of the sanitary survey are addressed within the required frequency.
The State may conduct sanitary surveys once every five years for community water systems if the system either provides at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log inactivation and removal) before or at the first customer for all its ground water sources, or if it has an outstanding performance record, as determined by the State and documented in previous sanitary surveys and has no history of total coliform MCL or monitoring violations under 40 CFR 141.21 of this chapter since the last sanitary survey. In its primacy application, the State must describe how it will determine whether a community water system has an outstanding performance record.	40 CFR 142.16 (o)(2)(iii)	PRDOH has established to conduct sanitary surveys for CWS no less frequently than every three years, as provided in 40 CFR 142.16 (o)(2)(i). Nevertheless, if the need were to arise, a CWS may be eligible for sanitary surveys once every five years, in a case-by-case basis, if the CWS either provides at least 4-log treatment of viruses (using inactivation, removal, or a PRDOH-approved combination of these technologies) before or at the first customer for all its ground water sources, or has an outstanding performance record documented in previous sanitary surveys and has no history of total coliform MCL or monitoring violations under 40 CFR 141.21 (Total Coliform Rule) since the last sanitary survey. PRDOH developed, as part of the IESWTR primacy package, a

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		<p>procedure for determining whether a system should be considered to have outstanding performance. This procedure was revised and modified to provide inspectors with enough direction to ensure consistent implementation. However, outstanding performance will depend on conclusive special conditions and will be determined in a case-by-case basis. These criteria will be integrated into the sanitary survey process. The PWSS Program Director will make the final determination to reduce sanitary survey frequency of the CWS either by the 4-log treatment of viruses or outstanding performance record approaches. Appendix 5 provides a copy of the Outstanding Performance Criteria Determination.</p>
<p>The State must define and describe in its primacy application at least one specific significant deficiency in each of the eight sanitary survey elements in paragraphs (o)(2)(i)(A) through (o)(2)(i)(H) of this section. Significant deficiencies include, but are not limited to, defects in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that the State determines to be causing, or have potential for causing, the introduction of contamination into the water delivered to consumers.</p>	40 CFR 142.16 (o)(2)(iv)	<p>For PRDOH significant deficiencies include, but are not limited to, any defect in a system's design, operation, maintenance, or administration, as well as, any defect, failure or malfunction of the sources, treatment, storage, or distribution system to be causing, or have potential for causing, imminent risk to public health by the introduction of contamination into the water delivered to consumers and may affect the reliable delivery of safe drinking water. PRDOH developed, as part of the IESWTR primacy package, a list of significant deficiencies. This list was revised and modified to provide inspectors with enough direction to ensure consistent implementation. However, the final determination of what constitutes a significant deficiency will depend on conclusive special conditions and will be determined in a case-by-case basis. This list includes at least one specific significant deficiency in each of the eight sanitary</p>

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		survey elements in (o)(2)(i)(A) through (o)(2)(i)(H). The List of Significant Deficiencies is included in Appendix 6.
As a condition of primacy, the State must provide ground water systems with written notice describing any significant deficiencies no later than 30 days after the State identifies the significant deficiency. The notice may specify corrective actions and deadlines for completion of corrective actions. The State may provide the written notice at the time of the sanitary survey.	40 CFR 142.16 (o)(2)(v)	PRDOH will provide ground water systems with written notice describing any significant deficiencies no later than 30 days after identifying any significant deficiency. PRDOH, as part of the IESWTR primacy package, submitted an example letter format of PRDOH's existing Sanitary Survey Notice. Appendix 7 provides an example letter format revised and modified. The PWS must submit PRDOH with a written action plan that indicates appropriate corrective actions including interim measures, if necessary, needed to address the significant deficiencies and deadlines for completion of the corrective actions. PRDOH may provide a written notice at the time of the sanitary survey. Administrative Order 2008-529-09 provides regulation for 40 CFR 142.16 (o)(2)(v) compliance, which is in Appendix 2.
<i>State practices or procedures for source water microbial monitoring.</i> The State's primacy application must include a description of the following:	40 CFR 142.16 (o)(3)	This row intentionally left blank.
The criteria the State will use under 40 CFR 141.402(a)(2)(i) and 141.402(d)(2) of this chapter for extending the 24-hour time limit for a system to collect a ground water source sample to comply with the source water monitoring requirements.	40 CFR 142.16 (o)(3)(i)	PRDOH may allow an extension to the 24-hour time limit for a system to collect a required triggered source ground water sample. All PWS must require PRDOH's pre-approval for the sampling delay. The final approval will depend on conclusive special conditions and will be determined in a case-by-case basis. Factors may include, but will not be limited to, laboratory or mail unavailability, severe weather conditions, or an extreme condition or circumstance beyond the system control, in which the delay cannot be avoided. PRDOH will document in writing its

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		decision to allow an extension to the 24-hour time limit, along with the rationale(s) for the decision. The system will be required to sample within 24-hour of being notified.
The criteria the State will use under 40 CFR 141.402(a)(5)(i) and 141.402(a)(5)(ii) of this chapter to determine whether the cause of the total coliform-positive sample taken under 40 CFR 141.21(a) of this chapter is directly related to the distribution system.	40 CFR 142.16 (o)(3)(ii)	PRDOH may waive the triggered source water monitoring requirement if it can be determined that the total coliform-positive sample is solely a result of a distribution system deficiency. All PWS must require PRDOH's pre-approval. The final approval will depend on conclusive special conditions and will be determined in a case-by-case basis. Factors may include, but will not be limited to: after a storage tank inspection where contamination is evident; after main repair of a storage tank; in a zone of the distribution system where pressure is negative or low; or when it is likely that contamination is the result of a cross connection in the distribution system. PRDOH will document in writing its decision to waive triggered source water monitoring, along with the rationale(s) for the decision.
The criteria the State will use for determining whether to invalidate a fecal indicator-positive ground water source sample under 40 CFR 141.402(d)(1)(ii) of this chapter.	40 CFR 142.16 (o)(3)(iii)	PRDOH will use, but will not be limited to, the provisions for sample invalidation criteria reported in the TCR at 40 CFR 141.21(c).
The criteria the State will use to allow source water microbial monitoring at a location after treatment under 40 CFR 141.402(e)(1) of this chapter.	40 CFR 142.16 (o)(3)(iv)	PRDOH, at this stage, does not intent to allow source water microbial monitoring at a location after treatment under 40 CFR 141.402(e)(1). Nevertheless, PRDOH will consider allowing sampling locations after treatment, when requested by the system, if deemed necessary, in a case-by-case evaluation, and only if the system meets the following two conditions: (1) the treatment will have no impact on microbial quality water, and 2) it is not possible to directly sample the untreated water.



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<p><i>State practices or procedures for treatment technique requirements.</i> As a condition of primacy, the State must verify that significant deficiencies or source water fecal contamination has been addressed. The State must verify within 30 days after the ground water system has reported to the State that it has completed corrective action. The State must verify either through written confirmation from the ground water system or a site visit by the State. Written notice from the ground water system under 40 CFR 141.405(a)(2) of this chapter may serve as this verification. The State's primacy application must include the following:</p>	40 CFR 142.16 (o)(4)	Administrative Order 2008-529-09, section 6, provides regulation for 40 CFR 142.16 (o)(4) compliance. PRDOH will verify within 30 days after the ground water system has reported that it has completed corrective action. PRDOH will verify through written confirmation from the system and with a site visit by the PWSS Program personnel.
<p>The process the State will use to determine that a ground water system achieves at least a 4-log treatment of viruses (using inactivation, removal, or a combination of inactivation and removal) before or at the first customer for a ground water source for systems that are not subject to the source water monitoring requirements of 40 CFR 141.402(a) of this chapter because the ground water system has informed the State that it provides at least 4-log treatment of viruses.</p>	40 CFR 142.16 (o)(4)(i)	PRDOH will consider the use of applicable EPA-developed virus CT tables to determine the concentration and contact time requirements necessary to achieve 4-log virus inactivation using chemical disinfection. PRDOH will use criteria factors such as, contact time correction factors (e.g., baffling factors), pH, temperature, flow, and minimal residuals using EPA's guidance manuals as helpful references. Appendix 8 provides copy of adapted CT tables from EPA's guidance manuals. Systems in Puerto Rico, at this moment, do not use UV reactors for disinfection. However, in the case that a system proposes UV disinfection processes for inactivation, PRDOH developed a protocol to approve an alternative approach to UV reactor validation testing. The protocol was developed as part of the LT2 Enhanced Surface Water Treatment Rule Primacy Package using as guidance Chapter 5 of EPA's <i>Ultraviolet Disinfection Guidance Manual</i> . The protocol may be found in Appendix 9. PRDOH will consider the use of UV dose table for inactivation of viruses in 40 CFR 141.720(d)(1). Adapted table for Virus Inactivation from UV

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		dose is in Appendix 10. The final determination to ensure that systems continuously meet the 4-log virus treatment requirements will depend on conclusive special conditions and will be determined in a case-by-case basis.
The process the State will use to determine the minimum residual disinfectant concentration the system must provide prior to the first customer for systems using chemical disinfection.	40 CFR 142.16 (o)(4)(ii)	PRDOH has determined that it is appropriate to set the minimum residual disinfectant concentration level on a system-by-system basis depending on the contact time available before the first consumer. This determination will be addressed by PRDOH's permitting process after thorough evaluation of the data that will be submitted by each system (i.e.: specific configuration, water quality, etc.). Residual disinfectant and contact time at peak momentary demand that would result in a minimum CT capable of inactivating 4-log viruses will be required in accordance with EPA's CT tables.
The State-approved alternative technologies that ground water systems may use alone or in combination with other approved technologies to achieve at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log inactivation and removal) before or at the first customer for a ground water source.	40 CFR 142.16 (o)(4)(iii)	PRDOH will allow the flexibility, through its authority, to review and approve all treatment/disinfection technologies that have the potential to be applied for removal and inactivation of microbial contaminants. The PWSS Program permitting/approval process will ensure that there will be adequate evidence confirming the long-term ability of the process alone or in combination with other approved technologies to achieve at least 4-log treatment of viruses for a ground water source.
The monitoring and compliance requirements the State will require for ground water systems treating to at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of inactivation and removal) before or at the first customer for State-approved alternative treatment technologies.	40 CFR 142.16 (o)(4)(iv)	PRDOH will consider each alternative treatment technology or combination of technologies, on a case-by-case basis and will require appropriate monitoring for ensuring that a minimum 4-log virus removal/inactivation would be achieved during peak momentary demand. The types of monitoring and reporting that systems will have

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		to complete and submit will depend on the alternative treatment technology. Minimum recommendations will be: (1) to check the treatment units daily to ensure they are operating properly and within validated conditions; (2) the treatment units should be regularly monitored to diagnose operating problems, determine when maintenance is necessary, and maintain safe operation; (3) monitoring of operational parameters; and (4) prepare and submit monthly reports. PRDOH developed a protocol for routine monitoring and compliance criteria for UV units using as guidance EPA's <i>Ultraviolet Disinfection Guidance Manual</i> . The protocol is in Appendix 11.
The monitoring, compliance and membrane integrity testing requirements the State will require to demonstrate virus removal for ground water systems using membrane filtration technologies.	40 CFR 142.16 (o)(4)(v)	Up to now in Puerto Rico there are no GWS using membrane filtration technologies. Nevertheless, PRDOH will consider a GWS in compliance with the treatment technique requirement to achieve 4-log removal of viruses when: (1) The membrane has an absolute molecular weight cut-off or an alternate parameter that describes the exclusion characteristics of the membrane and can reliably achieve at least 4-log removal of viruses; (2) the integrity of the membrane is intact; and, (3) the membrane process is operated in accordance with state-specified compliance requirements. These requirements are, but will not be limited to: (1) routine pressure (direct integrity) testing and reporting of the results as prescribed by the membrane manufacturer; (2) continuous indirect integrity (turbidity) monitoring; and, other site-specific variables; (3) PRDOH requires all GWS to disinfect, which enables measurement of a residual or measurable turbidity breakthrough



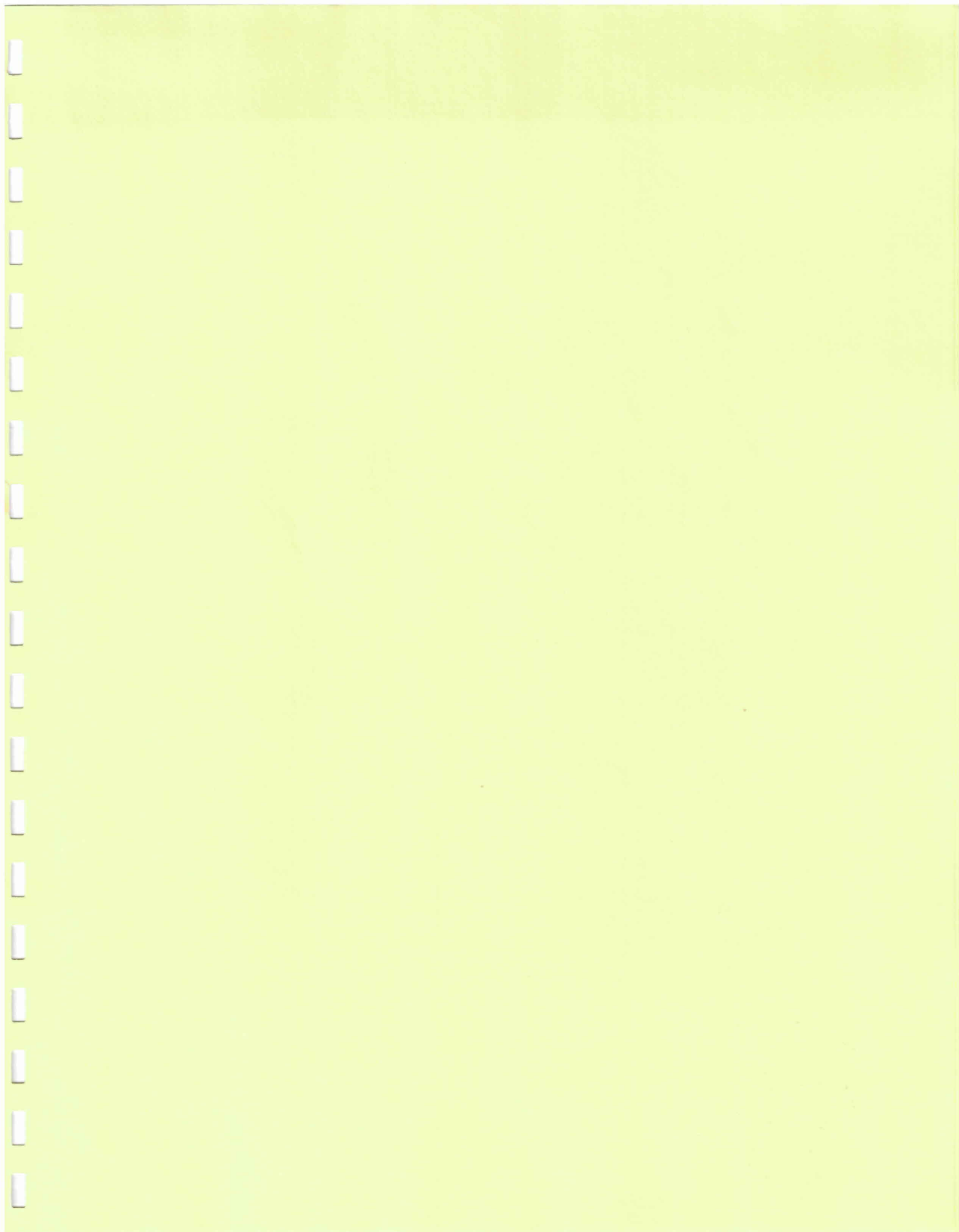
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40 CFR 142.16 SPECIAL PRIMACY REQUIREMENTS		
		that will ensure performance when using membrane filtration.
The criteria, including public health-based considerations and incorporating on-site investigations and source water monitoring results the State will use to determine if a ground water system may discontinue 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of inactivation and removal) before or at the first customer.	40 CFR 142.16 (o)(4)(vi)	PRDOH will establish criteria strict enough to not compromise public health protection if the 4-log treatment were to be discontinued. The criteria will include rigorous requirements such as results of on-site investigations, source water monitoring, and documentation of well rehabilitation. Examples of when PRDOH may consider appropriate to discontinue treatment are, but will not be limited to: (1) a year of monthly source water monitoring for a fecal indicator and detailed evidence that the well is drawing water from a protected confined or semi-confined aquifer; (2) a source that has been shown to be less sensitive hydrogeologically and free from contamination based on source water monitoring; and (3) a well with structural conditions resulting in impairment of its water quality is rehabilitated and conditions no longer exists. Criteria for the decision that a GWS may discontinue 4-log treatment of viruses will depend on conclusive special conditions and will be determined in a case-by-case basis. PRDOH's final determination, along with the rationale(s) for the decision will be documented in writing.

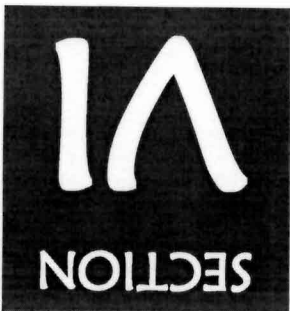
References:

- *The Ground Water Rule (GWR) Implementation Guidance*, USEPA, November 2007, EPA 816-D-07-001
- PRDOH's Interim Enhanced Surface Water Treatment Rule Primacy Package, USEPA Approved June 2003
- Title 40 CFR Parts 141-142, electronic CFR (e-CFR), August 4, 2008
- *Guidance Manual for Compliance with the filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources*, USEPA, March 1991
- *Ultraviolet Disinfection Guidance Manual*, USEPA, November 2006, EPA 815-R-06-007









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## Attorney General's Statement of Enforceability





COMMONWEALTH OF PUERTO RICO  
*Department of Justice*

ROBERTO J. SÁNCHEZ RAMOS  
SECRETARY OF JUSTICE

November 6, 2008

URGENT AND CONFIDENTIAL

By fax to (212) 637-3891 and by Certified Mail

Mr. Allan Steinberg  
Regional Administrator  
US Environmental Protection Agency  
Region II  
290 Broadway  
New York, New York 1007-1866

RE: PR's Department of Health "Public Water System Supervision  
Primacy Program Revision (Ground Water Rule)"

Consulta Núm. 08-108-B

Dear Mr. Steinberg:

The Environmental Protection Agency, Region II ("EPA"), is currently reviewing the Puerto Rico Department of Health's Public Water System Supervision primacy submittal date May 8, 2007 for the Ground Water Rule requirements and revisions required by the 1996 Safe Drinking Water Act, as amended. In order to complete the review process, EPA requested legal certification about the Commonwealth of Puerto Rico's legal authority to adopt and enforce such regulations and about the Commonwealth's status on environmental audit privilege and/or immunity law.

I hereby certify, pursuant to my authority as Secretary of Justice of the Commonwealth of Puerto Rico's and in accordance with the 1996 Safe Drinking Water Act, as amended, and 40 C.F.R. 142.12(c)(1)(iii), that in my opinion the laws of the Commonwealth of Puerto Rico to carry out the program set forth in the





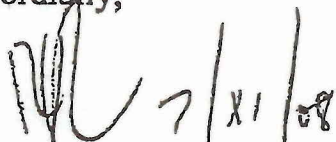
Consulta Núm. 08-108-B  
Page 2

Primacy Revision Application submitted by the Puerto Rico Department of Health have been duly adopted and are enforceable.

The specific authorities provided are contained in statues or regulations that are lawfully adopted at the time this statement is approved and signed and should be fully effective by the time the program is approved.

Furthermore, I certify that the Commonwealth of Puerto Rico has not enacted any environmental audit privilege and/or immunity laws.

Cordially,

A handwritten signature in dark ink, appearing to be 'RJR', followed by the date '7/11/08' written vertically.

Roberto J. Sánchez Ramos



COMMONWEALTH OF PUERTO RICO

# DEPARTMENT OF JUSTICE

- PO BOX 00192, SAN JUAN, PUERTO RICO 00902-0192

ADDRESS ALL COMMUNICATIONS TO THE SECRETARY

June 5, 2002

Hon. Johnny Rullán  
Secretary  
Department of Health  
PO Box 70184  
San Juan, Puerto Rico 00936-0184

Opinion No. 227-02-A  
Translated

Dear Secretary Rullán:

This letter is in response to your request for an opinion as to the legal basis upon which the Department of Health of the Commonwealth of Puerto Rico (Department) may adopt, by reference, the amendments to the regulations administered by the Environmental Protection Agency (EPA).

On March 5, 2002, the Department of Health enacted Regulation No. 6090, *General Regulation for Environmental Health* (General Regulation), pursuant to the provisions of Act No. 5 of July 21, 1977, as amended, *Act to Protect the Purity of Drinking Water of Puerto Rico*, 12 PR Laws Ann. §§ 1551 *et seq* (Act No. 5). The General Regulation established the standards to be met with regards to the drinking water in Puerto Rico. Towards that end, it provides for the adoption, by reference, of the amendments that may be approved to sections 141 to 143 of Title 40 of the Code of Federal Regulations (CFR) and the *Safe Drinking Water Act* (SDWA) without complying with the requirements established by Act No. 170 of August 12, 1988, as amended, *Uniform Administrative Procedure Act of the*

*Commonwealth of Puerto Rico*, 3 PR Laws Ann. §§ 2101 *et seq* (Administrative Act).

You indicate that the EPA questions the validity of adopting amendments by reference, without complying with the procedure of the Administrative Act. On August 21, 2000, then Acting Secretary of Justice, Edda Serrano Blasini, Esq., issued an opinion addressed to Mrs. Jeanne M. Fox, an official of the EPA, expressing that the Department had complied with the requirements established by the *National Primacy Safe Drinking Water Regulation*, as stated in section 141 of the CFR. The opinion certified that such rules were validly adopted and incorporated into Puerto Rico's legal system. However, the opinion did not state the basis in law and jurisprudence that allowed the Department to adopt federal regulations by reference. This letter intends to fulfill such omission.

Act No. 5 was approved in order to regulate compliance with the standards for the purity of the drinking water, as well as the level of tolerance of contaminants. By virtue of section 3 of Act No. 5, the Secretary of Health (Secretary) is conferred the authority to enact and enforce the rules necessary to ensure the safety of drinking water in Puerto Rico, in accordance to the criteria established by the EPA. This includes the adoption of procedures for monitoring and inspection.

The regulations issued by the Secretary under Act No. 5 are applicable to all the systems that offer water for human consumption in Puerto Rico. Section 4 of Act No. 5 provides that the Secretary can establish variations and waivers to the approved regulations. This includes the power to adopt the conditions he deems necessary and desirable, as long as such conditions are not less strict than the ones established by the federal regulations under the SDWA.

In its provisions regarding the safety of drinking water, the General Regulation establishes that the adoption of primary and secondary contaminant standards of drinking water, as well as the operation of the water systems, are to be ruled by the applicable federal regulations in the CFR and the SDWA, as they may be amended.



The constitutionality of the delegation of power to a public agency by the Legislative Branch is determined by the boundaries prescribed with the delegation in question. In addition, the scope of the power granted to an agency must be examined in light of the methods of control present in the statutes applicable to the specific agency. D. Fernández, Derecho Administrativo y Ley Uniforme de Procedimientos Administrativos, Forum, 2<sup>da</sup> Ed, 2001. Therefore, the analysis regarding the validity of the power an administrative action must begin with the boundaries limiting the power and the statutory context in which they appear.

The doctrine which prescribes the proper delegation of power is jurisprudential and is based on broad and general principles. Due to the complexity of the current social and economic problems faced by modern legislation, the doctrine in this field establishes that the delegation of power to administrative agencies is more efficient when done in terms of broad and general standards. Hilton Hotels v. Junta de Salario Mínimo, 74 DPR 670, 698 (1953). See also, American Power & Light v. Security Exchange Commission, 329 US 90 (1946).

The validity of an administrative agency's power to adopt regulations must be examined in accordance to the following standard: (1) the administrative action is authorized by law; (2) the administrative agency is invested with the power to issue regulations; (3) the regulations enacted fall within the boundaries of the delegated powers; (4) the rules were enacted in compliance with the procedural norms established by the organic act, and any other applicable statute, (5) the rules are not arbitrary or capricious. M & B.S., Inc. v. Departamento de Agricultura, 118 DPR 319 (1987). Consequently, the legislative delegation can be wide and flexible, as long as the regulations issued remain in harmony with the statutory provisions under which they are enacted. Ex Parte Irizarry, 66 DPR 672 (1946). Otherwise, the regulation faces a potential risk of illegal. Franco Dominicci v. Departamento de Educación, Opinion and Judgment of June 30, 1999, 99 JTS 108.

As stated above, Act No. 5 authorizes the Secretary to enact such regulations as he finds necessary, within the parameters for drinking water established by the EPA, as long as they are not less rigorous than the federal regulations. The General Regulation explicitly contains said statutory

limitation. The main guiding principle for the administrative action is precisely the federal rules, specifically sections 141 to 143 of the CFR. Therefore, the Regulation meets the standard mentioned above. The Secretary possesses legal power to enact those provisions as he deems necessary, without any additional requirement besides the delegation already given by the Legislative Branch.

Further, the adoption by reference of any amendment that may be enacted to the CFR and to the SDWA, implies that changes of a substantive nature will take place in the local regulation with every amendment to the federal rules. However, any intended amendment or modification to the local regulation must be done in compliance with the provisions of the Administrative Act in order to be valid.

The Administrative Act was approved with the purpose, among others, of creating a uniform body of minimum rules with which the agencies subject to said statute must comply whenever they intend to propose and adopt regulations. Said statute establishes the proceedings to be followed to implant regulations.

However, the *General Provisions* contained in the corresponding subchapter, 3 PR Laws Ann. § 2103, exempts the agencies from complying with the requirements of the Administrative Act whenever they determine it is necessary in order to avoid the denial of funds or services by the federal government of the United States of America. Said section acknowledges the discretionary power of the agencies to shape and conform their administrative procedures to those required by the applicable federal laws, without complying neither with the provisions of the Administrative Act or the *Administrative Procedure Act*, 5 USC §§ 551 *et seq.* This waiver from said statutes is complete, except for the requirements concerning the publication of the rules.

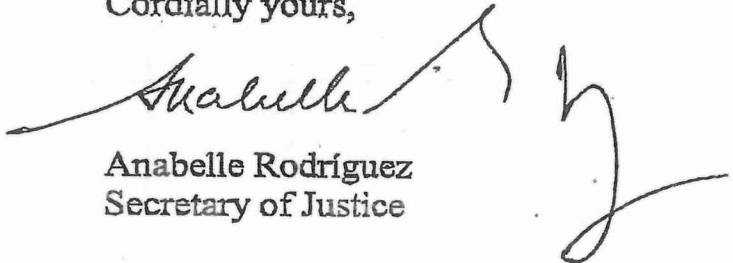
In accordance to the aforementioned jurisprudence, it is clearly evident that the Legislative Branch has empowered the Secretary to enact and enforce the regulations he deems necessary to monitor and supervise the drinking waters in Puerto Rico, according to the standards established by the Administrator of the EPA. As part of the duties imposed by Act No. 5, the

Secretary manages the Revolving Fund for Potable Waters in Puerto Rico, which receives grants assigned by the EPA and the federal government.

In adopting the amendments by reference, is not under the obligation to hold public hearings prior to the enactment of said rules, nor comply with any other provision of the Administrative Act. However, he shall comply with the requisite of disclosure and publication established in the Administrative Act, whenever the amendments to the federal regulations substantially affect the General Regulation.

Hoping that the aspects discussed above will be helpful, I remain,

Cordially yours,

A handwritten signature in dark ink, appearing to read 'Anabelle', followed by a long, sweeping horizontal line that extends to the right and then curves upwards.

Anabelle Rodríguez  
Secretary of Justice





7720

COMMONWEALTH OF PUERTO RICO

*Office of the Attorney General*

BOX 9020192, SAN JUAN, P.R. 00902-0192

ADDRESS COMMUNICATIONS TO  
THE ATTORNEY GENERAL

July 24, 2001

Mr. William Muszynski  
Acting Regional Administrator  
US EPA Region 2  
290 Broadway  
New York, New York 10007-1866

**RE: Audit Privilege and/or Immunity Laws**

Dear mister Muszynski:

The Environmental Protection Agency (EPA) Region 2 is currently reviewing the Puerto Rico Department of Health's (PRDOH) Public Water System Supervision (PWSS) primacy submittal date August 21, 2000 for both Consumer Confidence Report (CCR) Rule requirements and revisions required by the 1996 Safe Drinking Water Act (SDWA) Amendments. These amendments are regarding the Administrative Penalty authority, the definition of a Public Water System and Emergency Plan for the provision of safe drinking water. In order to complete the review process, EPA requested legal certification about the Commonwealth's environmental audit privilege and/or immunity law.

I hereby certify that the Commonwealth of Puerto Rico has not enacted any environmental audit privilege and/or immunity laws. Therefore, there are not adverse effect in the ability to meet enforcement and information gathering requirements under the Safe Drinking Water Act.

09-002

The first part of the report deals with the general situation of the country. It is a very interesting and informative study of the country's development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country.

The second part of the report deals with the economic situation of the country. It is a very interesting and informative study of the country's economic development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's economic development.

The third part of the report deals with the social situation of the country. It is a very interesting and informative study of the country's social development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's social development.

The fourth part of the report deals with the political situation of the country. It is a very interesting and informative study of the country's political development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's political development.

The fifth part of the report deals with the cultural situation of the country. It is a very interesting and informative study of the country's cultural development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's cultural development.

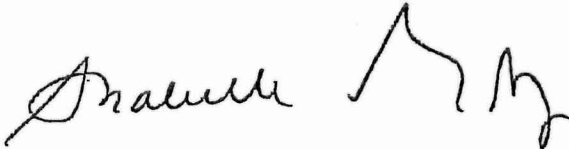
The sixth part of the report deals with the environmental situation of the country. It is a very interesting and informative study of the country's environmental development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's environmental development.

The seventh part of the report deals with the future of the country. It is a very interesting and informative study of the country's future development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's future development.

Page 2

If you need additional information, please contact Mrs. Mayra Maldonado, Director of the DOH Legal Advisor Office at (787)274-7660.

Respectfully,

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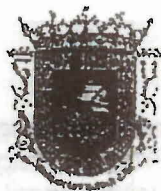
Anabelle Rodríguez  
Attorney General

CC: Johnny Rullán-Secretary-DOH  
Carl Soderberg-Caribbean Environmental Protection Division  
Bruce Kiselica-EPA Region 2

1. The first part of the paper is devoted to a discussion of the general principles of the theory of the structure of the atom.

2. In the second part, we shall consider the question of the influence of the external magnetic field on the structure of the atom.

3. The third part of the paper is devoted to a discussion of the question of the influence of the external electric field on the structure of the atom.



*The Attorney General*  
*San Juan, Puerto Rico*

August 21, 2000

Ms. Jeanne M. Fox  
Regional Administrator  
Environmental Protection Agency  
Region II  
290 Broadway  
New York, New York 10007-1866

**Re: Puerto Rico's Primacy Revision Application-Safe Drinking Water**

Dear Ms. Fox:

According to the requirements established in Title 40 of the Code of Federal Regulation ("CFR"), §142.12, the Puerto Rico Department of Health ("PRDOH") has to obtain approval of program revisions undertaken to adopt the National Primacy Safe Drinking Water Regulations as promulgated in 40 CFR Part 141 (the "NPSDWR") in order to demonstrate its primary enforcement responsibility ("Primacy"). In its efforts to evidence its Primacy, the PRDOH has requested that we issue an opinion regarding its legal authority to adopt the amendments to the Safe Drinking Water Act ("SDWA") introduced in 1996 by Public Law 104-182 (the "SDWA Amendments"). We must also opine as to whether the PRDOH has duly incorporated the SDWA Amendments and if the adoption of said amendments has been done by adequate and enforceable means.

**PRDOH's Role as Local Agency with Primacy**

Puerto Rico Act No. 5 of July 21, 1977, 12 L.P.R.A. §1551, et seq., also known as the "Act to Protect the Purity of Drinking Water of Puerto Rico," (the "APPDWPR") authorized the Secretary of the PRDOH to protect the purity of the drinking water in Puerto Rico. Pursuant to the authority delegated in the APPDWPR, the Secretary of the PRDOH should issue appropriate regulations fixing the maximum contaminant levels for drinking water according to the criteria established by the Administrator of the Environmental Protection Agency. Puerto Rico Act No. 193, approved by the Puerto Rico Legislature on December 26, 1997, reasserted the PRDOH's primary responsibility for protecting the purity of drinking water and public health, in general, in this jurisdiction.

Regulation No. 50 adopted by the PRDOH on June 20, 1983, also known as "Regulation to Protect the Purity of the Drinking Water of Puerto Rico," ("Regulation 50") and its subsequent amendments were adopted to comply with the delegated power and responsibilities of the PRDOH under the APPDWPR and for the PRDOH to adequately function as the state agency with Primacy. On February 4, 2000, in an effort to update and clarify its role as the agency with

Primacy in this jurisdiction, the PRDOH adopted Regulation No. 6090, also known as the "General Regulation of Environmental Health," ("PRDOH Regulation No. 6090") and derogated Regulation No. 50. For the sake of evidencing its unequivocal intent to comply with all SDWA requirements and with the SDWA Amendments, in particular, in Article II §1.02 of PRDOH Regulation No. 6090 the PRDOH adopted the totality of 40 CFR Part 141, as amended from time to time, by reference.

#### **Requirements for a Showing of Primacy**

We proceed to analyze the requirements established in the NPSDWR for a showing of Primacy and the local statutes and regulations that serve to grant Primacy to the PRDOH.

1. Under 40 CFR §142.10 (a), in order to establish its primary responsibility for public water systems, the PRDOH must adopt drinking water regulations no less stringent than those imposed by the NPSDWR.

In compliance with this requirement, the PRDOH Regulation No. 6090 establishes in its Article II §1.02 that primary standards for drinking water will be fixed and regulated according to 40 CFR Part 141, as amended. Article II §1.06 (1) of PRDOH Regulation No. 6090 goes even farther than the requirement established in 40 CFR § 142.10 in as much as, in order to protect public health, it grants to the Secretary of the PRDOH the authority to impose more stringent standards on drinking water safety than those established on the SDWA and the CFR.

2. In 40 CFR § 142.10 (b)(2) it is required that the PRDOH systematically perform sanitary surveys of public water systems, prioritizing on water systems violating primary drinking water regulations.

PRDOH Regulation No. 6090 adopted in its Article II §1.02, by reference, all requirements contained in 40 CFR Part 141, as it may be amended from time to time.

3. According to 40 CFR §142.10 (b)(6)(i), the PRDOH must have authority to apply its primary drinking water regulations to all public water systems in Puerto Rico. The PRDOH must also have statutory or regulatory enforcement authority adequate to assure compliance with locally adopted primary drinking water regulations, as necessary.

Section 3 of the APPDWPR, 12 L.P.R.A. §1551, et seq., authorizes the PRDOH to enforce drinking water regulations applicable to all water systems for human consumption.

In Chapter II, Article II §1.04 of the PRDOH Regulation No. 6090, the PRDOH is authorized (a) to require that all water systems in Puerto Rico comply with NPSDWR requirements regarding safe drinking water, and (b) to immediately close any facility violating said requirements.

4. 40 CFR §142.10 (b)(6)(ii) requires that the PRDOH be able to sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of the State's primary drinking water regulations.



Section 5 of the APPDWPR, 12 L.P.R.A. §1551, et seq., authorizes the Secretary of the PRDOH to take any actions deemed necessary to protect a water system and its users' health. These actions include, but are not limited to, the commencement of a civil suit and the request of a permanent or temporary injunction.

5. Under 40 CFR §142.10 (b)(6)(iii), the PRDOH must have right of entry and inspection of public water systems, including the right to take water samples, whether or not it has evidence of violations of an applicable legal requirement.

Section 3 of the APPDWPR, 12 L.P.R.A. §1551, et seq., authorizes the Secretary of the PRDOH to conduct inspections and perform monitoring on water systems for human consumption.

Chapter I, Article IX § 2 of the PRDOH Regulation No. 6090 authorizes the inspection by the PRDOH of any drinking water system without previous notice.

Chapter I, Article IX § 5 of the PRDOH Regulation No. 6090 authorizes the Secretary of the PRDOH to take and analyze samples on water systems or any of its components to determine water quality and purity.

6. 40 CFR §142.10 (b)(6)(iv) requires that the PRDOH require suppliers of water to keep appropriate records and make appropriate reports to the State.

Article II §1.02 of the PRDOH Regulation No. 6090 adopted the 40 CFR Part 141, as amended, by reference.

Chapter I, Article IX § 5 of the PRDOH Regulation No. 6090 authorizes the Secretary of the PRDOH to require and examine any record from facilities or systems under its jurisdiction, as deemed necessary.

7. In order to comply with the requirements of 40 CFR §142.10 (b)(6)(v), the PRDOH must be authorized to require public water systems to give public notice according to requirements established in 40 CFR §§ 141.32 and 142.16 (a), respectively.

Section 7 of the APPDWPR, 12 L.P.R.A. §1551, et seq., requires a water system that is, in any way, in noncompliance with drinking water standards to immediately notify the nature and extent of the situation and its possible adverse health effects the local health office, the Secretary of the PRDOH and the media in the area served by the system. If the Secretary of the PRDOH so requires, said notice must be published in a daily newspaper of general circulation while the violation or variance exists, and must be included in water bills issued to system users. Article II §1.02 of the PRDOH Regulation No. 6090 adopted, by reference, the 40 CFR Part 141, as amended.

8. 40 CFR §142.10 (b)(6)(vi) requires that the PRDOH have authority to assess civil or criminal penalties for violation of the local primary drinking water regulations and public notification requirements, including the authority to assess daily penalties or multiple penalties when a violation continues.



Section 9 of the APPDWPR, 12 L.P.R.A. §1551, et seq., authorizes the Secretary of the PRDOH to impose civil penalties not greater than five thousand dollars (\$5,000.00) per day per violation of the APPDWPR, of regulations adopted by the PRDOH regarding drinking water, or of any administrative order issued relating to this matter.

Chapter III of the PRDOH Regulation No. 6090 authorizes the imposition of criminal penalties not greater than five thousand dollars (\$5,000.00) per day per violation of Section I of Regulation No. 6090.

Violation of public notice requirements would constitute a violation of both of the APPDWPR and PRDOH Regulation No. 6090.

9. Pursuant to the requirements in 40 CFR §142.10 (b)(6)(vii), the PRDOH must be authorized to require consumer confidence reports to all community water systems. Said reports must be prepared according to 40 CFR Part 141, subpart O.

Article II §1.02 of the PRDOH Regulation No. 6090 adopted, by reference, 40 CFR Part 141, as amended from time to time.

10. Under 40 CFR §142.10 (d)(1), if the PRDOH allows small system variances pursuant to Section 1415(e) of the SDWA, it must provide procedures no less stringent than the SDWA and Subpart K of this part.

Section 4 of the APPDWPR, 12 L.P.R.A. §1551, et seq., authorizes the Secretary of the PRDOH to grant variances and exemptions to drinking water regulations, provided they are authorized under conditions not less rigorous than variances or exemptions allowed under federal law.

11. As required pursuant to 40 CFR §142.10 (d)(2), if the PRDOH permits other type of variances, or exemptions, or both, from local primary drinking water regulations, it shall do so under conditions and in a manner no less stringent than the requirements of §§ 1415 and 1416 of the SDWA. In granting these variances, the State must adopt EPA Administrator's findings of best available technology, treatment techniques, or other means available as specified in Subpart G of this part.

Article II §1.02 of the PRDOH Regulation No. 6090 adopted 40 CFR Part 141, as amended, by reference, and Article II §1.05 of said regulation authorizes variances and exemptions only according to 40 CFR Part 141.4.

12. 40 CFR § 142.10(e) requires the adoption and implementation of an adequate plan for the provision of safe drinking water under emergency circumstances including, but not limited to, earthquakes, floods, hurricanes, and other natural disasters.

Section 6 of the APPDWPR, 12 L.P.R.A. §1551, et seq., directs the Secretary of the PRDOH to promulgate a plan to supply drinking water in emergency circumstances, and authorizes the Secretary of the PRDOH to take any measures deemed necessary to supply it. The plan has been adopted and is periodically revised to reflect any relevant change of

circumstances in the island or its infrastructure, and changes regarding agency officials to be contacted.

13. 40: CFR §142.10 (f)(1) requires that the PRDOH have authority for assessing administrative penalties of at least \$1,000 per day, per violation, for public water systems serving a population of more than 10,000 individuals. For public water systems serving a population of 10,000 or fewer individuals the penalties to be imposed by the PRDOH must be adequate to ensure compliance with local regulations. As long as these criteria are met, the maximum administrative penalty per violation to be assessed on a public water system may be determined by the PRDOH.

Section 9 of the APPDWPR, 12 L.P.R.A. §1551, et seq., authorizes the Secretary of the PRDOH to impose civil penalties not greater than five thousand dollars (\$5,000.00) per day, per violation of the APPDWPR, of regulations adopted by the PRDOH regarding drinking water, or of any administrative order issued relating to this matter.

Chapter III of the PRDOH Regulation No. 6090 authorizes the imposition of criminal penalties not greater than five thousand dollars (\$5,000.00) per day per violation of regulations contained on Section I of PRDOH Regulation No. 6090.

Administrative Order No. 2000-27500 issued on August 18, 2000, by the Secretary of the PRDOH specifically requires that any penalty imposed on public water systems serving a population of more than 10,000 individuals must be of at least \$1,000 per day per violation, and for public water systems serving a population of 10,000 or less individuals, penalties assessed must adequately deter future violations of applicable regulations.

14. The state agency must administer a Public Water Supply Supervision Program ("PWSS") pursuant to Section 1413 of the SDWA.

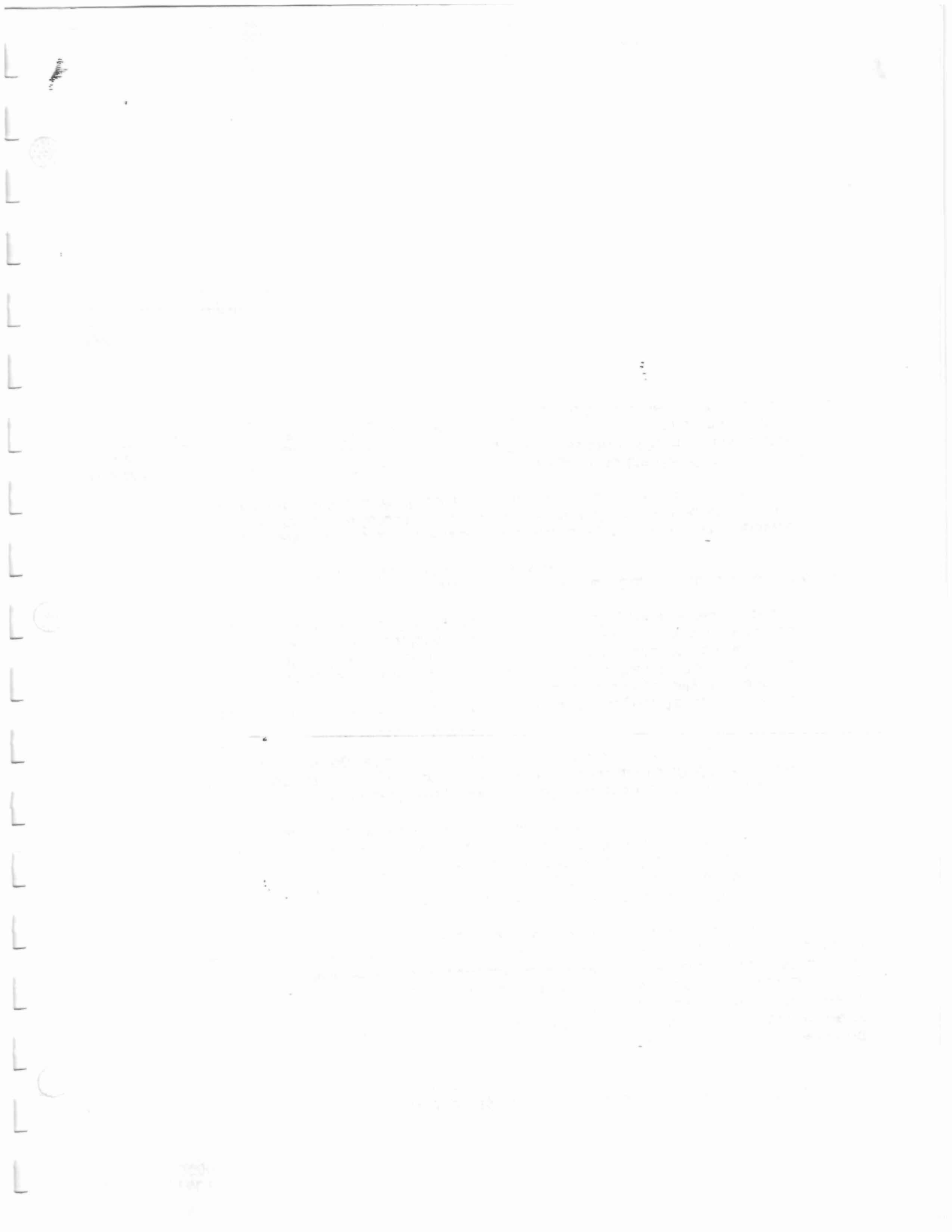
The PRDOH administers its PWSS pursuant to Section 1413 of the SDWA and the primary enforcement authority delegated to the PRDOH by the Administrator of the EPA, through communication dated March 1, 1980.

The preceding analysis of the authorities and functions delegated to the PRDOH in the previously reviewed statutes and regulations reveals, in our opinion, that the PRDOH is fully authorized by the APPDWPR to adopt and enforce the SDWA Amendments, that the referenced amendments have been lawfully adopted by the PRDOH and are enforceable through legally adequate means.

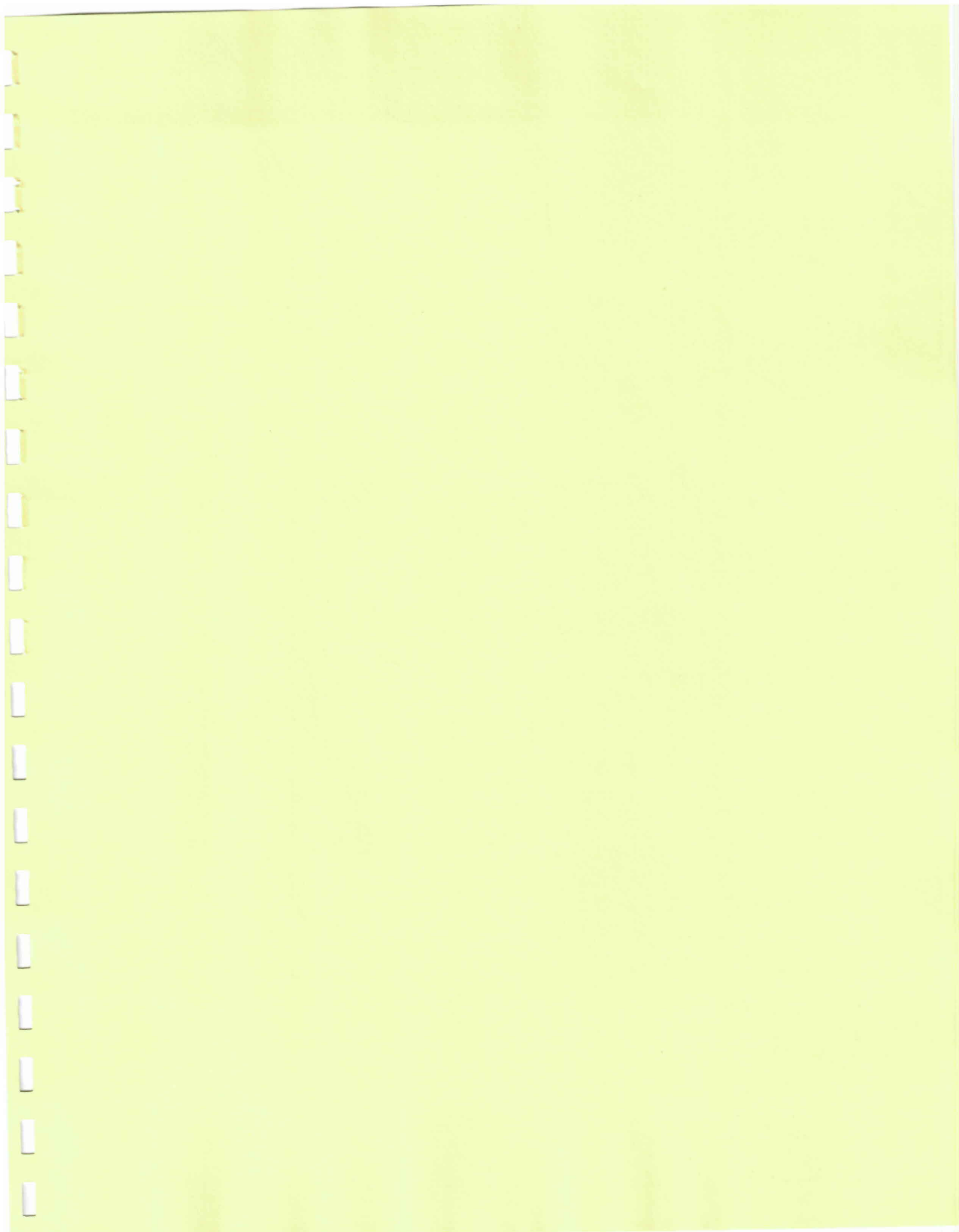
Respectfully,



Edda Serrano Blasini  
Deputy Attorney General







SECTION  
VII

## GWR Appendices

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- ❖ Appendix 1: Administrative Order 2002-364-02
- ❖ Appendix 2: Administrative Order 2008-529-09
- ❖ Appendix 3: Sanitary Survey Programs from FY 2005 through FY 2010
- ❖ Appendix 4: Sanitary Survey Form
- ❖ Appendix 5: Outstanding Performance Criteria Determination
- ❖ Appendix 6: List of Significant Deficiencies
- ❖ Appendix 7: Sanitary Survey Notice Format
- ❖ Appendix 8: CT Tables for 4-log inactivation of Viruses
- ❖ Appendix 9: Protocol to Approve Alternative Approach to UV Reactor  
Validation Testing
- ❖ Appendix 10: Virus Inactivation from UV dose tables
- ❖ Appendix 11: Monitoring and Compliance Criteria for UV Units







*COMMONWEALTH OF PUERTO RICO  
DEPARTMENT OF HEALTH  
OFFICE OF THE SECRETARY*

August 5, 2002

Public Water System  
Owner and/or Operator

RE: Administrative Order 2002-364-02  
Order to establish requirements for action  
plans in response to sanitary surveys.

Public Water System Owner and/or Operator:

Act No. 5, approved on July 21, 1977, known as the Act to Protect the Purity of the Drinking Water in the Commonwealth of Puerto Rico, authorize the Secretary of Health to promulgate and enforce the necessary regulations to protect the purity of the drinking water supply in Puerto Rico and to protect the health of the people served by those systems as well. In May 1980, the Environmental Protection Agency (EPA) granted the Puerto Rico Department of Health (PRDOH) primacy for all existing national primary drinking water regulations in Puerto Rico.

EPA has promulgated the Interim Enhance Surface Water Treatment Rule (IESWTR), which requires states to conduct sanitary surveys for all PWSs using surface water or ground water under the direct influence of surface water (GWUDI) as a source.

To this extent, the PRDOH in its ministerial role to watch over the health of the Puerto Rican people, and in accordance with the provisions in Act No. 5 and the drinking water regulation, order and require that:

1. Sanitary surveys shall be conducted for all systems using surface water or ground water under the direct influence of surface water (GWUDI)<sup>1</sup> as a source in compliance with §142.16(b)(3) of the IESWTR:

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<sup>1</sup> Subpart H systems: PWSs using surface water or ground water under the direct influence of surface water (GWUDI).



- a. Sanitary surveys will be conducted to all systems regardless of the population the PWS serves<sup>2</sup>;
  - b. Sanitary surveys will be conducted to all systems no less frequently than every three (3) years for community water systems (CWS) and every five (5) years for noncommunity water systems (NCWS), as established in §142.16 (b)(3)(i);
  - c. A CWS determined to have outstanding performance based on previous sanitary surveys will be eligible to conduct successive sanitary surveys at a reduced frequency (no less than five years intervals). A CWS will be considered to have outstanding performance depending on conclusive special conditions in a case-by-case basis;
  - d. Sanitary surveys conducted must address all eight (8) elements as described in §142.16 (b)(3)(i)(A) through (H):
    - The eight (8) sanitary survey elements are: source; treatment; distribution system, finish water storage; pumps, pump facilities, and controls; monitoring and reporting and data verification; system management and operation; operator compliance with state requirements.
2. All Public Water Systems (PWSs) must respond in writing to the significant deficiencies outlined in the sanitary survey report. PRDOH will consider as a significant deficiency any defect in a system's operation, maintenance, or administration, as well as any defect, failure or malfunction of any system component, that determines to cause, or have the potential to cause, imminent risk to health or that could affect the reliable delivery of safe drinking water:
- a. PRDOH will notify the system in writing the significant deficiencies found after conducting a sanitary survey;
  - b. The system must respond in writing to PRDOH within 45 calendar days after receipt of the sanitary survey report, as established in §142.16(b)(1)(ii);
  - c. The system must submit PRDOH an action plan to assure it will respond to the significant deficiencies outlined in the sanitary survey report, as established in §142.16(b)(1)(ii);
  - d. The action plan must indicate how and on what schedule the system will address the significant deficiencies noted in the survey, as established in §142.16(b)(1)(ii).
3. All Public Water Systems (PWSs) must take the necessary steps to address the significant deficiencies identified in the sanitary survey report:

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<sup>2</sup> Systems that serves 10,000 or more people must conduct sanitary surveys beginning January 1, 2002.





- a. PRDOH will notify the system the approval or disapproval of the action plan in writing after its submittal.
  - b. The system must comply with the approved action plan schedule to assure it will take the necessary steps to address the significant deficiencies identified in the sanitary survey report, as established in §142.16(b)(1)(iii);
  - c. Those deficiencies that represent imminent risk to health must be notify to the system owner and/or operator for its immediate corrective action. The timeframe required for the correction will depend on the finding;
4. PRDOH must review the disinfection profile as part of the sanitary survey for systems that are required to comply with the profiling requirements in §141.172.
- a. The system must have the disinfection profile available for review as established in §142.16(b)(3)(iv).

All actions which willfully violates any of the requirements previously described shall be subject to administrative and/or legal enforcement actions, as well as penalties in accordance with the applicable rules and laws in force.

This Order, under the power granted to the Secretary of Health on Section #5 of Act No. 5, will be in force immediately after its approval.

Cordially,



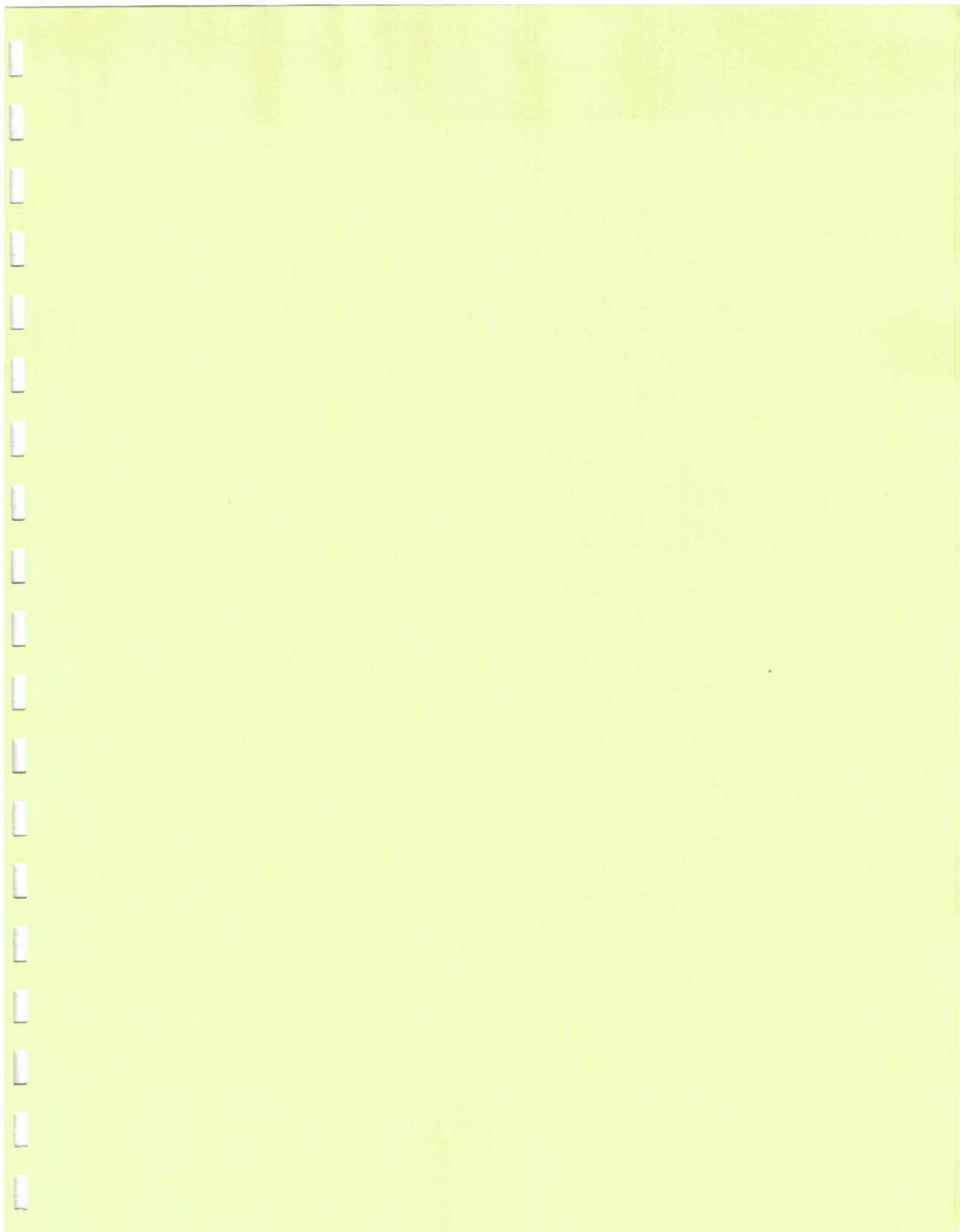
Johnny Rullan, M.D., FACPM  
Secretary of Health

Cc: Mr. Carl Soderberg, EPA-CEPD  
Mr. Bruce Kiselica, EPA-NY  
Mr. Alfredo Casta Vélez, Aux. Secretary-DOH  
Ms. Olga I. Ruvera, PWSSP Dir.-DOH  
Esq. Mayra Maldonado, Legal Div. Dir.-DOH











Estado Libre Asociado de Puerto Rico  
Departamento de Salud  
Oficina del Secretario

October 29, 2008

Public Water System  
Owner and/or Operator

**Re: Administrative Order 2008-529-09  
Order to establish additional requirements for states  
sanitary survey program, significant deficiencies, and  
require source water monitoring.**

Public Water System Owner and/or Operator:

Act No. 5, approved on July 21, 1977, as amended, known as the Act to Protect the Purity of the Drinking Water in the Commonwealth of Puerto Rico, authorize the Secretary of Health to promulgate and enforce the necessary regulations to protect the purity of the drinking water supply in Puerto Rico and to protect the health of the people served by those systems as well. Therefore, in May 1980, the Environmental Protection Agency (EPA) granted the Puerto Rico Department of Health (PRDOH) primacy for all existing national primary drinking water regulations in Puerto Rico.

In October 12, 2006, EPA promulgated the Ground Water Rule (GWR), which describes several additional provisions states must apply to their sanitary survey programs for ground water systems (GWS). These provisions address the aspects of GWS that must be evaluated during the sanitary survey, minimum frequencies for conducting the sanitary surveys, and identification of significant deficiencies that require immediate correction action by the system owner and/or operator.

PRDOH has already adopted relevant authority for these requirements when the Interim Enhanced Surface Water Treatment Rule (IESWTR) was adopted in June 13, 2003, and Administrative Order 2002-364-02: "Order to establish requirements for action plans in response to sanitary surveys" was issued in August 5, 2002.

To this extent, the PRDOH in its ministerial role to watch over the health of the Puerto Rican people, and in accordance with the provisions in Act No. 5 and the Drinking Water Regulation, order and require that:

1. Sanitary surveys must be conducted for all public water supply systems (PWS) using ground water as a source in compliance with 40 CFR 142.16(o) of the GWR, as follows:



- a. Sanitary Surveys conducted must address the eight (8) sanitary survey elements as described in 40 CFR 142.16(o)(2)(i)(A)-(H), as applicable:
  - i. Sanitary survey elements: source; treatment; distribution system; finished water storage; pumps, pump facilities, and controls; monitoring, reporting, and data verification; system management and operation; and operator compliance with state requirements.
- b. Sanitary surveys must be conducted no less frequently than every three (3) years for community water systems (CWS), except as provided in 40 CFR 142.16(o)(2)(iii), and every five (5) years for non-community water systems (NCWS). Sanitary surveys may be conducted more frequently for any system, as provided in 40 CFR 142.16(o)(2)(i).
- c. Sanitary surveys may be conducted from once every three (3) years to no less frequently than every five (5) years for CWS providing at least 4-log treatment of viruses before or at the first consumer for all its ground water sources, or that have been determine to have outstanding performance record, as provided in 40 CFR 142.16(o)(2)(iii).
2. PRDOH will provide written notice to the PWS describing any significant deficiencies no later than 30 days after identifying the significant deficiency, as provided in 40 CFR 142.16(o)(2)(v).
3. The PWS must submit PRDOH with a written action plan that indicates appropriate corrective actions including interim measures, if necessary, needed to address the significant deficiencies and deadlines for completion of the corrective actions, as provided in 40 CFR 142.16(o)(1)(ii).
4. The PWS must submit PRDOH with a written action plan that indicates appropriate corrective actions including interim measures, if necessary, needed to address any source water fecal contamination identified during routine or triggered source water monitoring and deadlines for completion of the corrective actions, as provided in 40 CFR 142.16(o)(1)(iii).
5. The PWS must submit PRDOH with a written action plan within 45 calendar days after receiving PRDOH's notice. PRDOH will notify the system the approval or disapproval of the action plan in writing. The system must comply with the approved action plan and schedule to assure the most appropriate corrective action is conducted, as provided in 40 CFR 142.16(o)(1)(iv).
6. PRDOH will verify within 30 days that significant deficiencies or source water fecal contamination have been addressed after the GWS has reported that it has completed the corrective actions, as provided in 40 CFR 142.16(o)(4).

All actions, which willfully violate any of the requirements previously described, shall be subject to administrative and/or legal enforcement actions, as well as penalties in accordance with the applicable rules and laws in force.

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October 29, 2008  
SAO 2008-529-09  
Page 3

This Order, under the power granted to the Secretary of Health on Section No. 5 of Act No. 5, will be in force immediately after its approval.

Cordially,



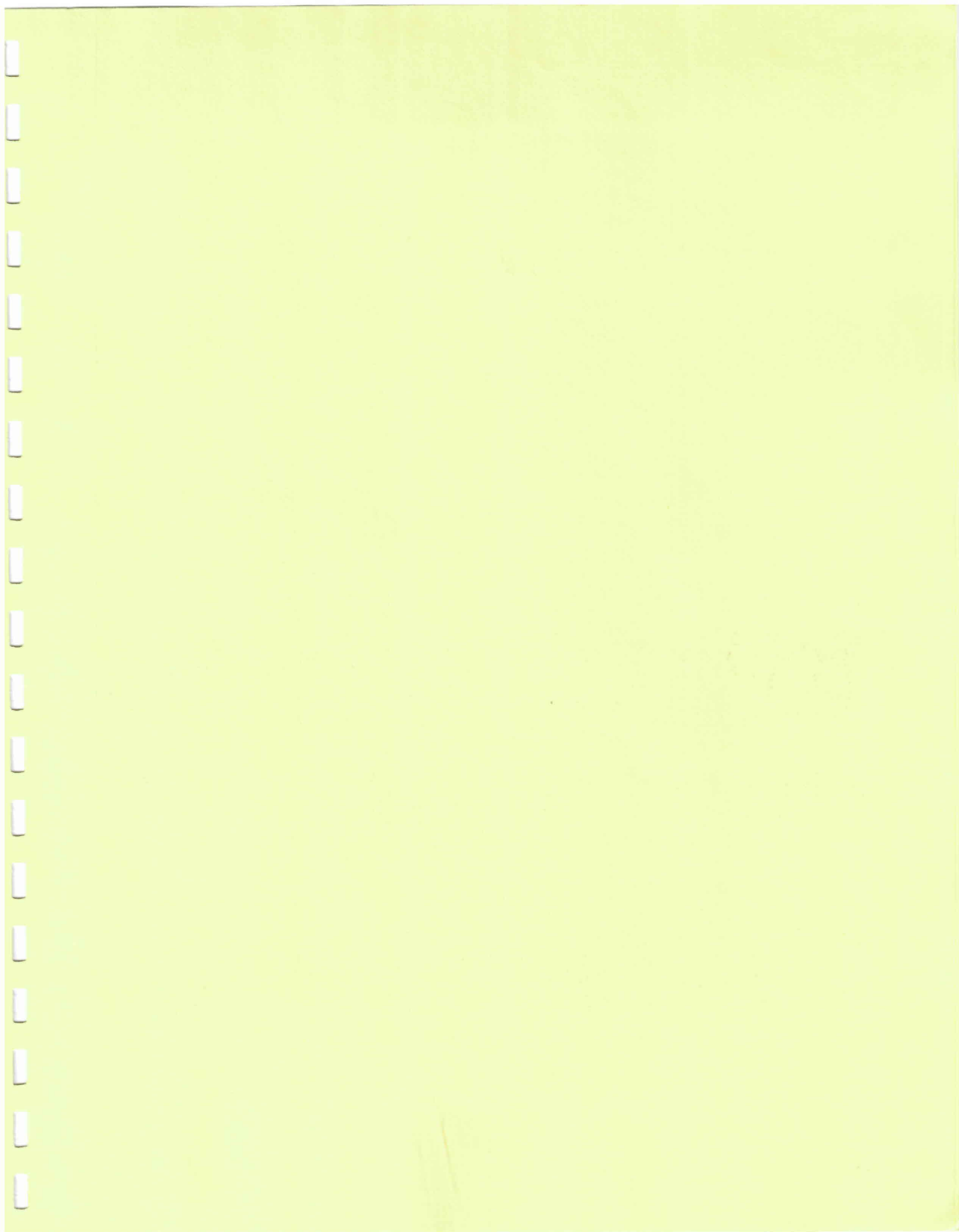
JOHNNY RULLÁN, MD, FACPM  
Secretary

cc: Mr. Carl Soderberg, EPA-CEPD  
Mr. Bruce Kiselica, EPA-NY  
Mr. Alfredo Casta-Vélez, PRDOH  
Mr. Javier O. Torres, PRDOH  
Esq. Luis Zayas-Marxuach, PRDOH









**PROGRAMA DE TRABAJO PARA FY-05 AL FY-07****SISTEMAS PRASA**

Región	Sistemas	Plantas	Encuesta Sanitaria Por Año		Visitas de Cotejo Por Año	Sistemas Superficiales	Sistemas Subterráneos
			Sup	Sub			
Este	43	33	11	0	122	33	10
Norte	60	33	11	0	174	33	27
Oeste	39	24	7	0	96	21	18
Sur	66	33	10	0	171	31	35
Metropolitano	4	8	1	0	4	4	0
<b>Total</b>	<b>212</b>	<b>131</b>	<b>40</b>	<b>0</b>	<b>567</b>	<b>122</b>	<b>90</b>
			40		212		

**SISTEMAS NON-PRASA**

Región	Sistemas		Visitas de Cotejo Por Año	Encuesta Sanitaria Por Año		Sistemas Superficiales	Sistemas Subterráneos
				Sup	Sub		
Este	84 C 18 P 1 NC	103	93	10	0	30	73
Norte	44 C 17 P	61	53	8	0	25	36
Oeste	23 C 1 P 1 NC	25	23	2	0	7	18
Sur	85 C 9 P 2 NC	96	80	16	0	52	44
Metropolitano	3 C 4 P	7	6	1	0	5	2
<b>Total</b>	<b>239 C 49 P 4 NC</b>	<b>292</b>	<b>225</b>	<b>37</b>	<b>0</b>	<b>119</b>	<b>173</b>
				37		292	

**TOTAL**

Región	Sistemas	Plantas	Visitas Cotejo Por Año	Encuestas Por Año
Este	146	34	215	22
Norte	121	33	227	20
Oeste	64	25	119	9
Suroeste	162	33	251	27
Metropolitano	11	8	10	2
<b>Total</b>	<b>504</b>	<b>133</b>	<b>828</b>	<b>80</b>

**Región Este**  
**Encuestas Sanitarias PRASA Superficial**  
**FY05 al FY-07**

<b>FY</b>	<b>ENCUESTA</b>	<b>PWS ID</b>	<b>SISTEMA</b>
<b>2005</b>		PR0005376	LAS PIEDRAS HUMACAO
	12/14/1999	PR0005126	QUEBRADA HONDA
	01/18/2000	PR0005386	RIO BLANCO,VIEQUES,CULEDRA
	02/01/2000	PR0004635	CAYEY URBANO
	02/29/2000	PR0004665	CULEBRAS
	03/09/2000	PR0005096	GURABO URBANO
	03/15/2000	PR0004725	CEDRITO
	04/25/2000	PR0005106	SAN LORENZO URBANO
	05/15/2000	PR0005046	AGUAS BUENAS URBANO
	07/31/2000	PR0005306	FAJARDO CEIBA
	09/14/2000	PR0004705	COMERIO URBANO
<b>2006</b>	08/09/2001	PR0005136	ESPINO
	08/09/2001	PR0005186	GUAYABOTA
	08/20/2001	PR0005396	SAN SALVADOR
	08/20/2001	PR0005416	JAGUAL
	08/28/2001	PR0005256	PASTO SECO
	08/30/2001	PR0005346	MOROVIS
	07/11/2002	PR0005196	YABUCOA URBANO
	08/19/2002	PR0004645	GUAVATE
	02/14/2002	PR0004545	AIBONITO URBANO
	08/21/2002	PR0005316	LUQUILLO URBANO
	09/10/2002	PR0005166	JUNCOS - CEIBA SUR
<b>2007</b>	02/04/2002	PR0005286	CUBUY
	02/13/2002	PR0005336	JIMENEZ
	02/15/2002	PR0005326	ZARZAL
	06/28/2002	PR0005146	QUEBRADA ARENAS
	6/15/2004	PR0004605	BARRANQUITAS URBANO
	6/16/2004	PR0004925	FARALLON
	7/6/2004	PR0005066	CAGUAS SUR
	7/6/2004	PR0005086	CAGUAS NORTE
	7/13/2004	PR0004625	BARRANCAS NUEVO
	9/14/2004	PR0005296	EL YUNQUE
	10/30/2004	PR0004695	CIDRA URBANO

**Región Norte**  
**Encuestas Sanitarias PRASA Superficial**  
**FY05 al FY-07**

<b>FY</b>	<b>ENCUESTA</b>	<b>PWS_ID</b>	<b>SISTEMA</b>
<b>2005</b>	12/13/1999	PR0002752	CIALES URBANO
	12/22/1999	PR0002692	LARES URBANO
	01/04/2000	PR0003732	LAS DELICIAS
	01/24/2000	PR0003192	SABANA GRANDE
	02/02/2000	PR0003802	JAGUAS PESAS (POZAS)
	02/23/2000	PR0002702	UTUADO URBANO
	03/15/2000	PR0002792	ESPERANZA
	03/17/2000	PR0002652	ARECIBO URBANO
	04/05/2000	PR0003142	RONCADOR
	06/26/2000	PR0002712	JAYUYA URBANO
	08/08/2000	PR0002842	RIO ARRIBA
<b>2006</b>	10/26/2000	PR0003232	INDIERA ALTA
	03/07/2001	PR0005487	COROZAL URBANO
	03/08/2001	PR0003042	LA PICA
	03/29/2001	PR0002982	ALMIRANTE SUR
	06/14/2001	PR0003712	SANTA ISABEL
	08/24/2001	PR0005517	CEDRO ARRIBA
	09/07/2001	PR0002772	VEGA BAJA URBANO
	09/25/2001	PR0005537	NEGROS
	02/21/2002	PR0003012	FRONTON
	04/01/2002	PR0003062	MAMEYES ARRIBA
	06/14/2002	PR0005527	ANONES
<b>2007</b>	06/18/2002	PR0002682	QUEBRADILLAS URBANO
	09/12/2002	PR0003022	SANAMUERTO
	09/23/2002	PR0003212	CANALIZO
	2/22/2004	PR0002000	SUPERACUEDUCTO
	3/4/2004	PR0002862	ZANJAS
	3/17/2004	PR0003082	RIO PRIETO
	4/15/2004	PR0005627	LA VIRGENCITA
	6/30/2004	PR0002762	MOROVIS URBANO
	7/23/2004	PR0002662	HATILLO-CAMUY
	9/8/2004	PR0003122	MAMEYES ABAJO
	9/22/2004	PR0002872	QUEBRADA

**Región Oeste**  
**Encuestas Sanitarias PRASA Superficial**  
**FY05 al FY-07**

<b>FY</b>	<b>ENCUESTA</b>	<b>PWS_ID</b>	<b>SISTEMA</b>
<b>2005</b>	12/28/1999	PR0003433	ROCHA
	02/29/2000	PR0003343	LAJAS
	03/15/2000	PR0003503	BUCARABONES-MARICAO
	05/08/2000	PR0003363	LAS MARIAS
	06/27/2000	PR0003283	MAYAGUEZ
	01/10/2001	PR0003353	MARICAO
	05/09/2001	PR0003313	ANASCO
<b>2006</b>	05/29/2001	PR0002922	LLANADAS
	08/28/2001	PR0003373	CABO ROJO
	01/23/2002	PR0003593	LA MAQUINA
	02/27/2002	PR0003533	CAIN ALTO
	02/31/2002	PR0003303	SAN SEBASTIAN
	03/07/2002	PR0003523	MONTE DEL ESTADO
	03/12/2002	PR0003463	LA JOSEFA
<b>2007</b>	05/07/2002	PR0003443	PERCHAS
	06/12/2002	PR0003333	SABANA GRANDE
	06/20/2002	PR0003483	ESPINO
	09/21/2002	PR0002672	ISABELA
	09/30/2002	PR0003293	AGUADILLA
	08/20/2003	PR0003323	SAN GERMAN
	3/25/2004	PR0003772	LAGO GUAJATACA

**Región Sur**  
**Encuestas Sanitarias PRASA Superficial**  
**FY05 al FY-07**

<b>FY</b>	<b>ENCUESTA</b>	<b>PWS ID</b>	<b>SISTEMA</b>
<b>2005</b>	02/25/2000	PR0004114	GUARAGUAO
	03/24/2000	PR0004574	TIBES
	04/18/2000	PR0003914	COAMO URBANO
	05/09/2000	PR0004164	TANAMA
	07/10/2000	PR0004314	YAUCO
	07/19/2000	PR0004745	GUAYAMA URBANO
	09/07/2000	PR0004564	MATRULLA
	09/14/2000	PR0004454	REAL ANON
	09/21/2000	PR0004464	MALPASO
	01/18/2001	PR0004234	DUEY
<b>2006</b>	02/21/2001	PR0004524	COTTO LAUREL
	03/09/2001	PR0004334	RANCHERA
	03/14/2001	PR0004244	JAGUA PASTO
	03/15/2001	PR0004364	PULGUILLAS
	04/10/2001	PR0003824	PONCE URBANO
	06/13/2001	PR0004034	JUANA DIAZ URBANO
	06/19/2001	PR0004044	OROCOVIS URBANO
	07/11/2001	PR0004614	RUCIO
	08/09/2001	PR0004825	MATUYAS
	10/18/2001	PR0003924	VILLALBA URBANO
	04/23/2002	PR0004514	HOGARES SEGUROS
<b>2007</b>	05/10/2002	PR0004324	PENUELAS
	06/12/2002	PR0004795	CARITE
	06/18/2002	PR0004584	GARZAS
	06/19/2002	PR0003944	APEADERO
	07/08/2002	PR0004755	GUAMANI
	07/11/2002	PR0004204	ADJUNTAS URBANO
	08/06/2002	PR0004624	JAGUA CEIBA
	08/14/2002	PR0003984	JULITA
	08/20/2002	PR0004494	GUILARTE
	09/26/2002	PR0004835	PATILLAS URBANO



**Región Metro**  
**Encuestas Sanitarias PRASA Superficial**  
**FY05 al FY-07**

<b>FY</b>	<b>ENCUESTA</b>	<b>PWS ID</b>	<b>SISTEMA</b>
<b>2005</b>	09/16/1999	PR0002591	METROPOLITANO
	09/11/2001	PR0005356	GUZMAN ARRIBA
<b>2006</b>	07/18/2002	PR0002611	CUBUY
<b>2007</b>	11/06/2002	PR0005557	BO NUEVO

**Región Este**  
**Encuestas Sanitarias Non-PRASA Superficial**  
**FY05 al FY-07**

<b>FY</b>	<b>ENCUESTA</b>	<b>PWS ID</b>	<b>SISTEMA</b>	<b>TIPO</b>
<b>2005</b>	01/12/2000	PR0518075	VECINOS COMUNIDAD LUIS LEBRON	C
	02/08/2000	PR0644076	LIJAS	C
	02/16/2000	PR0666026	MACANEA / ESPINO	C
	03/29/2000	PR0633106	LOS VAZQUEZ	C
	04/19/2000	PR0613266	BORINQUEN-PRADERAS	C
	11/06/2000	PR0666116	ACUED. COMUNIDAD 18	C
	11/15/2000	PR0604086	BAYAMONCITO	C
	03/05/2001	PR0653016	ASOC. PRO DESARROLLO COMUNAL	C
	04/30/2001	PR0518015	SECTOR PEPE HOYOS	C
	08/07/2001	PR0523025	PALOMAS II	C
<b>2006</b>	08/07/2001	PR0523045	ACUEDUCTO COMUNIDAD ZAMORRA	C
	08/09/2001	PR0677076	ACUED. BO. GUAYABOTA	C
	08/13/2001	PR0505055	CUYON	C
	09/27/2001	PR0661046	BARCELONA	C
	10/30/2001	PR0510105	LA CUEVA DEL INDIO	C
	11/13/2001	PR0653026	COM. RANCHO GRANDE	C
	02/26/2002	PR0619016	BASE NAVAL / ROOSEVELT ROAD	C
	03/06/2002	PR0523015	PALOMAS I	C
	09/09/2002	PR0636066	CARDINAL HEALTH MANUFACTURING	P
	09/17/2002	PR0613176	SECTOR LAJITAS	C
<b>2007</b>	01/09/2003	PR0653056	ASOCIACION DE AGUAS DEL DUQUE	C
	02/12/2003	PR0677196	ACUED. RURAL SECT. EL VEINTE	C
	04/15/2003	PR0613356	FINCA MI RECREO	C
	05/29/2003	PR0677206	ACUE. JACANAS PIEDRAS BLANCA 2	C
	06/24/2003	PR0636086	EX-LAX	P
	10/23/2003	PR0523055	COMUNIDAD MAISONET	C
	7/30/2004	PR0510055	CANABON ABAJO	C
	8/17/2004	PR0627016	JUAN DIEGO	C
	12/9/2004	PR0613296	LA UNION	C
	12/14/2004	PR0666126	ACUEDUCTO COMUNIDAD EDEM	C

**Región Norte**  
**Encuestas Sanitarias Non-PRASA Superficial**  
**FY05 al FY-07**

<b>FY</b>	<b>ENCUESTA</b>	<b>PWS ID</b>	<b>SISTEMA</b>	<b>TIPO</b>
<b>2005</b>	03/25/1993	PR0272102	HACIENDA RULLAN	C
	04/24/1995	PR0272292	ACUED. COMUNAL LA ESTANCIA	C
	04/29/1995	PR0272212	TIM RIVERA CASELLAS	C
	02/20/1996	PR0238012	ZAMAS	C
	04/19/1996	PR0242042	ACUED. DE LA COMUNIDAD	C
	04/20/1996	PR0272182	PUENTE BLANCO	C
	04/26/1996	PR0272162	LA CONCHITA	C
	04/16/1997	PR0242032	ACUED. HACIENDA PLANELL	C
<b>2006</b>	02/08/1999	PR0238032	ALTURAS DE COLLORES	C
	05/04/1999	PR0724117	COM. ELADIO ANDREU	C
	01/04/2000	PR0220032	ACUED. LAS DELICIAS	C
	03/01/2000	PR0272252	SIST. RURAL GRAULAO	C
	03/13/2000	PR0272012	VIVI ABAJO	C
	04/10/2000	PR0272072	EL VERDE	C
	06/03/2000	PR0724087	COPAR	C
	06/15/2000	PR0272262	VEGUITA	C
	09/18/2000	PR0238002	ALTURAS PIZA	C
<b>2007</b>	09/18/2000	PR0238072	SANTA BARBARA	C
	09/18/2000	PR0272142	COMUNIDAD CHORRERAS	C
	09/20/2000	PR0272272	SALTOS CAGUANA	C
	12/06/2000	PR0272082	ACUED. LA GRAMA	C
	03/31/2003	PR0238022	SANTA ROSA	C
	3/31/2003	PR0238142	PUENTE NEGRO	C
	09/08/2003	PR0238082	VEGUITAS GRIPINAS	C
	09/08/2003	PR0238122	SANTA BARBARA II	C